WHAT IS CLAIMED IS:

1. A tooth mobility measuring apparatus comprising:

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an impact mechanism which has at least one of an injection mechanism having an injection port which injects a fluid and a suction mechanism having a vacuum port which sucks air, and applies an impact force on a tooth by injection or suction, the impact mechanism comprising a control mechanism which sets a pressure by injection or suction to a predetermined value;

at least one sensor which detects a displacement state of the tooth which is moved by the impact force of the impact mechanism; and

a tooth mobility calculation mechanism which calculates a tooth mobility of the tooth on the basis of an output signal from the sensor.

- 2. An apparatus according to claim 1, wherein the fluid injected by the injection mechanism is a gas.
- 3. An apparatus according to claim 1, wherein the injection port which injects the fluid or the vacuum port which sucks air has a structure capable of simultaneously measuring a plurality of teeth.
- 4. An apparatus according to claim 1, wherein the control mechanism may adjust the predetermined value.
- 5. An apparatus according to claim 1, wherein the injection mechanism may adjust at least one of an injection state, a number of times of injection, and

an injection timing of the fluid to be impactively injected to the tooth to be inspected.

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- 6. An apparatus according to claim 1, wherein the sensor is a measuring device which irradiates the tooth with light and detects the displacement state of the tooth on the basis of reflected light.
- 7. An apparatus according to claim 6, wherein the light output from the sensor also has a position confirming function to visually recognize a position of a target to be subjected to injection or suction by the impact mechanism.
- 8. An apparatus according to claim 1, wherein the sensor is arranged around the injection port or the vacuum port.
- 9. An apparatus according to claim 1, wherein the displacement state of the tooth to be detected is at least one of a displacement amount and a displacement time of the tooth to be inspected.
- 10. An apparatus according to claim 1, wherein the tooth mobility calculation mechanism calculates an acceleration of displacement of the tooth on the basis of a maximum displacement amount and a displacement time of the tooth to be inspected.
- 11. An apparatus according to claim 1, wherein
 the apparatus further comprises means for locating the injection port or the vacuum port with respect to the tooth to be inspected.

- 12. A tooth mobility measuring method comprising:
- (a) applying an impact force having a predetermined pressure on a tooth to be inspected, the impact
 force being applied by one of injecting a fluid having
 a predetermined pressure to the tooth to be inspected
 and sucking the tooth to be inspected at a predetermined pressure;
- (b) detecting a displacement state of the tooth which is moved by the impact force; and
- (c) calculating a tooth mobility of the tooth on the basis of the detected displacement state.
- 13. A method according to claim 12, wherein the fluid in the applying an impact force is a gas.
- 14. A method according to claim 12, wherein the applying an impact force further comprises a step of adjusting the impact force.
- 15. A method according to claim 12, wherein the detecting a displacement state of the tooth comprises a step of adjusting at least one of a stress form of the impact, a number of times of impact, and a timing of application of the impact force.
- 16. A method according to claim 12, wherein the applying an impact force further comprises a step of locating an injection port or a vacuum port at a predetermined position using means for locating the injection port or the vacuum port with respect to the tooth to be inspected.

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17. A method according to claim 12, wherein the detecting a displacement state of the tooth comprises a step of irradiating the tooth with light and detecting the displacement state of the tooth on the basis of reflected light.

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- 18. A method according to claim 12, wherein the detecting a displacement state of the tooth comprises a step of detecting the displacement state of the tooth from at least one of a displacement amount and a displacement time of the tooth to be inspected.
- 19. A method according to claim 12, wherein the calculating a tooth mobility of the tooth on the basis of the detected displacement state comprises a step of calculating the tooth mobility of the tooth on the basis of at least one of the impact force applied to the tooth to be inspected, a maximum displacement amount of the tooth, a displacement time of the tooth, and a distance between an injection port or a vacuum port and the tooth to be inspected.
- 20. A nozzle used in the tooth mobility measuring apparatus of claim 1, which has an injection port which injects a fluid and/or a vacuum port which sucks air, the injection port and/or vacuum port having a structure capable of applying an impact force on at least one tooth.